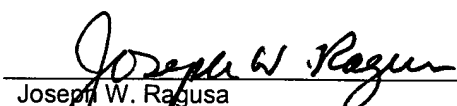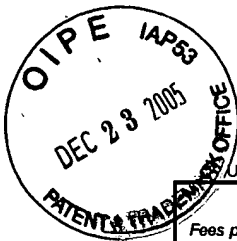| TRANSMITTAL OF APPEAL BRIEF	Docket No. M1909.1124

In re Application of: Tessei Shimizu

Application No. 10/698,394-Conf. #2718	Filing Date November 3, 2003	Examiner T. V. Nguyen	Group Art Unit 3661

Invention: ECO-DRIVING DIAGNOSTIC SYSTEM AND METHOD, AND BUSINESS SYSTEM USING THE SAME

TO THE COMMISSIONER OF PATENTS:

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed: ___October 27, 2005___ .

The fee for filing this Appeal Brief is ___$ 500.00___ .

[x] Large Entity [ ] Small Entity

[ ] A petition for extension of time is also enclosed.

The fee for the extension of time is _____ .

[ ] A check in the amount of _____ is enclosed.

[ ] Charge the amount of the fee to Deposit Account No. _____ .
This sheet is submitted in duplicate.

[x] Payment by credit card. Form PTO-2038 is attached.

[x] The Director is hereby authorized to charge any additional fees that may be required or credit any overpayment to Deposit Account No. ___50-2215___ .

_____
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Dated: ___December 22, 2005___

	Complete if Known	
Effective on 12/08/2004.	Application Number	10/698,394-Conf. #2718
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).	Filing Date	November 3, 2003
FEE TRANSMITTAL	First Named Inventor	Tessei Shimizu
	Examiner Name	T. V. Nguyen
For FY 2005	Art Unit	3661
☐ Applicant claims small entity status. See 37 CFR 1.27		
TOTAL AMOUNT OF PAYMENT ($) 500.00	Attorney Docket No.	M1909.1124

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 50-2215 Deposit Account Name: Dickstein Shapiro Morin & Oshinsky LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

	FILING FEES		SEARCH FEES		EXAMINATION FEES		
Application Type	**Fee ($)**	**Small Entity Fee ($)**	**Fee ($)**	**Small Entity Fee ($)**	**Fee ($)**	**Small Entity Fee ($)**	**Fees Paid ($)**
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee ($)	Fee Paid ($)		Multiple Dependent Claims	
					Fee ($)	**Fee Paid ($)**
_____ - = _____	x _____	= _____			_____	_____

Indep. Claims	Extra Claims	Fee ($)	Fee Paid ($)
_____ - = _____	x _____	= _____	

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee ($)	Fee Paid ($)
_____ - 100 = _____	/50 _____	(round up to a whole number) x	_____ =	_____

4. OTHER FEE(S)

Non-English Specification, $130 fee (no small entity discount)

Other (e.g., late filing surcharge): 2402 Filing a brief in support of an appeal   Fees Paid ($) 500.00

SUBMITTED BY				
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Name (Print/Type)	Joseph W. Ragusa		Date	December 22, 2005

Docket No.: M1909.1124
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Tessei Shimizu

Application No.: 10/698,394

Confirmation No.: 2718

Filed: November 3, 2003

Art Unit: 3661

For: ECO-DRIVING DIAGNOSTIC SYSTEM
AND METHOD, AND BUSINESS SYSTEM
USING THE SAME

Examiner: T. V. Nguyen

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under § 41.37(a), this brief is filed within two months of the Notice of Appeal filed in this case on October 27, 2005, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2), and the required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

I.   Real Party In Interest
II   Related Appeals and Interferences

I.   REAL PARTY IN INTEREST

The real party in interest for this appeal is:

NEC Corporation

II.   RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III.   STATUS OF CLAIMS

A.   Total Number of Claims in Application

There are 10 claims pending in application.

B.   Current Status of Claims

1.   Claims rejected: 1-4

2.   Claims withdrawn from consideration: 5-10.

C.   Claims On Appeal

The claims on appeal are claims 1-4.

IV.   STATUS OF AMENDMENTS

Applicant filed an Amendment in Response to Non-Final Office Action May 6, 2005, in response to the Office Action dated February 23, 2005. At that time, claims 1, 3 and 4 were amended to address formal issues. A Final Office Action was mailed July 28, 2005, which repeated the prior art rejections set forth in the Office Action dated February 23, 2005. A Request for Reconsideration was filed in response to the Final Office Action on September 23, 2005. In the Advisory Action mailed October 12, 2005, the Examiner indicated that the September 23, 2005 response did not place the case in condition for allowance. No further amendments have been made subsequent to the May 6, 2005 Amendment.

Accordingly, the claims enclosed herein as Appendix A reflect the status of the claims on and before May 6, 2005.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

An Eco-Driving diagnostic system according to an embodiment of the present invention is shown in Figure 1. This system includes a vehicle 100, a center 200, user terminals 301 and 302. The vehicle 100 includes a vehicle sensor 101, an in-vehicle device 102 and a radio communication terminal 103. The in-vehicle device 102 acquires various types of information, such as engine revolutions, fuel consumption, vehicle speeds, vehicle positional information, time information, from the car sensor 101 to temporarily process the data for subsequent use. The radio communication terminal 103 transmits the various types of information to the center 200 via a radio communication network 400. The radio communication terminal 103 can receive information from the center 200. Any number of the vehicles may be employed.

The center 200 includes a communication control device 201, a management server 202, a database 203, a mail server 204, and a Web server 205. The center 200 can transmit

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and receive via the communication control device 201 the various types of information to and from the radio communication terminal 103 in the vehicle 100. The management server 202 manages the information transmitted from the vehicle 100. The management server 202 can calculate, with respect to each vehicle, fuel consumption with respect to each event and corresponding to a total of events (for the driving time of a vehicle), i.e., events such as idling, rapid and sudden acceleration, racing the engine, etc., which have an adverse affects on fuel consumption and environmental-load emissions.

The information so obtained is stored in the database 203 with user information. Moreover, the management server 202 can retrieve the various types of information stored in the database 203 to convert them into various contents for conducting diagnosis and offering advices on the basis of combination and comparison of the data. The contents are transmitted from the mail server 204 to the user terminals such as the mobile terminal 301 and the PC 302 via a network 500, such as the Internet. The created contents may be transmitted to the user terminals 301 and 302 via the Web server 205 in the center 200. The user terminals can variously set up personal information, the timing of receiving the contents, the detail of the contents, etc. The operation of an Eco-Driving diagnostic system according to an embodiment of the present invention will next be described with reference to Figure 1.

When the driver of the car gets into the vehicle 100 and starts up the engine, the power source of the in-vehicle device 102 is turned on. From that moment, the in-vehicle device 102 acquires various types of information such as engine revolutions, fuel consumption, vehicle speeds, positional information of the vehicle and time information to obtain the vehicle driving status from the vehicle sensor 101. The in-vehicle device 102 continues acquiring the various types of information from the vehicle sensors 101 until the vehicle 100 engine is stopped.

The in-vehicle device 102 temporarily processes the data to identify fuel consumption with respect to each event, discussed above, and environmental-load emissions due to the fuel consumption. The information is transmitted from the radio communication terminal 103 in the vehicle 100 to the communication control device 201 via the radio communication network 400 at regular intervals.

The management server 202 calculates the received information and obtains the fuel consumption and the amount of emissions with respect to each event, the total amount during the driving and the like. The obtained data is associated with respective users and vehicles to be stored in the database 203. The management server 202 also compares the fuel consumption and environmental-load emissions due to fuel consumption with respect to each event and for a total driving time with those of the other vehicles on the basis of the information of each vehicle stored in the database 203.

The management server 202 creates contents including the results of comparison, breakdown of the amount of emissions with respect to each event, and the like, and searches for an event(s) causing increases of fuel consumption and CO_2 emissions on the basis of the information about the breakdown of the emissions, and creates contents including the diagnosed results and comments based on the results, so that a user can drive so as to remove the cause and reduce the environmental load. The processes described above are performed in all vehicles.

Subsequently, the center 200 provides the created contents for the user terminals (i.e., the mobile terminal 301 and the PC 302). Users may visit the Web from their mobile terminals via the network 500 to obtain desired contents.

Figure 2 illustrates a case in which a traffic ESCO (Energy Service Company) receives as a reward a part of a fuel cost which the service receiver was able to reduce by receiving the services from the traffic ESCO. In this embodiment, the traffic ESCO 1001

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provides Eco-Driving diagnostic services for the respective vehicles/drivers 1003 of a transport company 1002. The traffic ESCO 1001 collects and manages the information about a fuel cost that was reduced by receiving the Eco-Driving diagnostic services using a system for collecting such information. Subsequently, the traffic ESCO informs an owner 1004 of the transport company 1002 of the reduced fuel cost based on the collected information and receives therefrom a part of the reduced fuel cost as a reward.

Figure 3 illustrates a case in which the traffic ESCO obtains as a reward emission rights (emission reductions) for, for example, CO_2 according to another embodiment of the present invention.

According to this embodiment, the traffic ESCO 2001 provides Eco-Driving diagnostic services for the respective vehicles/drivers 2003 employed by the transport company 2002 obliged to achieve the amount of CO_2 emissions assigned thereto. The traffic ESCO 2001 collects and manages the information about CO_2 emissions reduced by receiving the Eco-Driving diagnostic services using a system for collecting such information. Subsequently, the traffic ESCO 2001 informs the owner 2004 of the transport company 2002 of the CO_2 emission reductions on the basis of the collected information. When the amount of emissions is below the amount assigned to the transport company 2002, the traffic ESCO 2001 receives a part of the excess emission rights (the excess amount of emissions) as a reward. On the other hand, when the CO_2 emissions are not below the assigned amount, the traffic ESCO may receive a reward based on the reduced fuel cost.

According to the Eco-Driving diagnostic system of the present invention, it becomes possible to quantitatively comprehend the CO_2 emissions, etc. by acquiring vehicle-sensor information. At the same time, GPS (Global Positional System) information such as vehicle positional information, time information and the like is acquired. Accordingly, it

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becomes possible to notice the gap in fuel consumptions and CO_2 emissions between different driving routes on the basis of data of driving experiences of plural vehicles.

Figure 4 shows the services according to this embodiment of the present invention. An Eco-Driving route information service provider 4001 collects information from respective Eco-Driving diagnosed vehicles 4002 to determine an Eco-Driving route. When receiving the original Eco-Driving route information, there are two ways to determine how much money is taken or given: the service provider 4001 can pay a reward to the respective Eco-Driving diagnosed vehicles 4002 in compensation for their Eco-Driving route information; or the service provider 4001 can receive a reward in compensation for providing the traffic ESCO services from a company receiving the traffic ESCO services (not shown in Figure 4).

The Eco-Driving route information provider 4001 creates an Eco-Driving route on the basis of the collected information, and providing the created Eco-Driving route information for an Eco-Driving route information receiver 4003 who needs the information. In this embodiment, the Eco-Driving route information service provider 4001 obtains incomes by providing the Eco-Driving route information and/or obtains income according to the reductions which the Eco-Driving route information receiver 4003 achieved by receiving the Eco-Driving route information.

In the embodiment shown in relation to Figure 5, some of the above-mentioned features are utilized to quantitatively comprehend the amount of CO_2 emissions while the vehicle 100 is driving on a tollway, while at the same time providing Eco-Driving services.

The embodiment shown in Figure 5 is the same as that shown in Figure 3 except that a user makes a profit by selling the emission reductions of environmental loads, for example, CO_2, the reductions being obtained owing to the Eco-Driving diagnosis.

In this embodiment, a company 5001, e.g., an automobile manufacturer, purchases CO_2 emission reductions directly from an Eco-Driving diagnostic service user 5002. This makes it possible for the user 5002 not only to obtain incentives in compensation for providing the emission reductions for the company 5001, but also to reduce environmental loads. The user 5002 may obtain the in-vehicle device 102 from the company 5001, such as an automobile manufacturer. The user 5002 may obtain a vehicle already provided with the in-vehicle device 102, the vehicle being sold by the company 5001. The company 5001 can utilize the purchased emission rights to generate full payback corresponding to the payment to the user by a trade in an emissions trading market.

In the above-described embodiments, the radio communication terminal 103 set to the vehicle 100 may include a displaying section to display various information from the center 200, and the like. Further, the radio communication terminal 103 may receive the contents including the diagnostic results and advices from the center 200. Accordingly, a driver can view the display of the radio communication terminal 103 to check fuel consumption, environmental-load emissions such as CO_2 emissions, etc., while driving. Further, the radio communication terminal 103 may serve as vehicle navigation equipment in a vehicle navigation system or may be included in the equipment. Accordingly, it becomes possible for a user to receive the Eco-Driving route information while driving, and change the route to the Eco-Driving route with less environmental loads.

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Final Office Action dated July 28, 2005 ("the Final Office Action") rejected claims 1, 2 and 4 under 35 U.S.C. § 103(a) as obvious over U.S. Patent 6,714,857 (Kapolka et al.) in view of JP 2002-197155 (Riu et al.) and U.S. Patent 6,636,790 (Lightner et al.).

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Claim 3 was rejected under 35 U.S.C. § 103 over Kapolka et al. in view of Riu et al. and Lightner et al. and further in view of U.S. Application 2002-089349 Satoshi et al. Claims 5-10, which are not under appeal, have been withdrawn from consideration.

VII.   ARGUMENT

A.   <u>Group 1 – Claims 1-4</u>

Independent claim 1 recites, inter alia, a management server that: manages information transmitted from a vehicle; calculates, on the basis of the managed information, at least fuel consumption and environmental-load emissions with respect to each of events which may occur and corresponding to a total of events over a total driving time of the vehicle.

Independent claim 3 recites, inter alia, processing, by the management server, the information stored in the database into contents including at least results obtained by comparing the fuel consumption and environmental-load emissions due to the fuel consumption with respect to each event and for a total driving time with those of the other vehicles, and breakdowns of the environmental-load emissions with respect to each event.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Both the teaching or suggestion to make the proposed combination, and the reasonable expectation of success, must be found in the prior art, not in Applicants disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See also MPEP §2143.

Further, the fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." *Id.* at 682. See also MPEP §2143.01.

As such, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). See MPEP §2141.02.

Applicant respectfully submits that the Examiner has failed to identify art that teaches or suggests the above-noted claim limitations of the independent claims.

In the Final Office Action, the Examiner relied upon two secondary references, Riu and Lightner, in an attempt to supply features conceded as missing from Kapolka et al., the primary reference.

In particular, it was conceded in the Final Office Action that Kapolka contains no teaching of the in-vehicle device providing data relating to engine revolutions, and vehicle speeds. Nor does Kapolka show storing the calculated information in the database with user information, retrieving and processing the information for a diagnosis by combining and comparing the information, providing the contents from the mail server to the user terminal. Further, Kapolka does not show that the user's terminal sets up timing of providing the contents and detail of the contents and informs with sound.

The Final Office Action relied upon Riu to supply certain features not found in Kapolka. The features not supplied by Riu are alleged to be supplied by Lightner. Applicant submits that the Final Office Action has failed to set forth a prima facie case of obviousness.

First, even when combined, the references do not teach or suggest every feature of the independent claims.

Independent claim 1 recites, inter alia, a management server that "calculates, on the basis of the managed information, at least fuel consumption and environmental-load emissions with respect to each of events which may occur and corresponding to a total of events over a total driving time of the vehicle . . . ."

In attempting to meet this limitation, the position was taken in the Final Office Action that Kapolka et al. teaches "calculating fuel consumption with respect to each event (idling, etc.) (col. 6, lines 49-63; col. 7, lines 34-58) for total driving time, . . ." Final Office Action at page 3. However, this statement does not correctly characterize either the reference or the claim limitation.

The cited portions of Kapolka et al. relate to a *single* event: idling. This cited portion is mischaracterized in the parenthetical remark "(idling, etc.)" which implies that more than one event, i.e., possibly an event other than idling, is taken into account in the cited portion of Kapolka et al. In fact, idling is the only "event" that is mentioned in the cited portion of Kapolka et al.

In Kapolka et al., the total idle fuel used value obtained near the point where the vehicle left a jurisdiction is subtracted from the total idle fuel used value obtained near the point the vehicle entered the jurisdiction to obtain the total idle fuel used within a jurisdiction. This is combined with other information to determine the total taxable amount of fuel used in the jurisdiction.

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On the other hand, claim 1 recites calculation of at least fuel consumption *and* environmental-load emissions with respect to *each of events* which may occur *and corresponding to a total of events* over a *total driving time of the vehicle*. As can be seen, Kapolka et al. calculates based on only idling, and does not calculate corresponding to a total of events that may occur. On the other hand, in claim 1, a calculation is performed based on each event, as well as calculated based on the total of events that occur over a total driving time.

In the portions of Kapolka et al. cited in the Final Office Action, with regard to the single event (idling), a calculation is made based on that single event as the event occurs within a particular jurisdiction, *not over a total driving time*, as is recited in claim 1. For at least this reason, and those mentioned in the foregoing paragraph, Kapolka et al. does not supply a teaching that corresponds at least to the above-mentioned feature of claim 1. Thus, even if the references are combined as proposed in the Final Office Action, no prima facie case of obviousness has been set forth.

Moreover, while Kapolka et al. makes calculations relating to fuel consumption as it relates to a single event (i.e., idling), it contains no teaching or suggestion of calculating, on the basis of the managed information, *environmental-load emissions* with respect to *each of events which may occur and* corresponding to *a total of events* over a total driving time of the vehiclemake environmental-load emissions due to the fuel consumption. For this additional reason, no prima facie case of obviousness has been set forth.

Claim 3 recites, inter alia, "processing, by the management server, the information stored in the database into contents including at least results obtained by comparing the fuel consumption and environmental-load emissions due to the fuel consumption with respect to each event and for a total driving time with those of the other vehicles, and breakdowns of the environmental-load emissions with respect to each event . . . ."

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As was discussed above in connection with independent claim 1, the allegedly corresponding portions of Kapolka et al. do not teach at least the features of claim 3 discussed above. That is, in Kapolka et al., with regard to the single event (idling), a calculation is made based on that single event as that event occurs within a particular jurisdiction. Moreover, the calculation discussed in the cited portions of Kapolka et al. occurs within a particular jurisdiction, *not over a total driving time*, and relates only to fuel consumption, and not to environmental-load emissions.

For at least the above reasons, Kapolka et al. does not teach all of the features for which it is relied upon in the Final Office Action. The other cited references do not show, and were not alleged to show, the aforementioned features of claim 1 and claim 3 and therefore do not remedy the abovementioned deficiency of Kapolka et al. as a reference against claim 1 and claim 3. Thus, no prima facie case of obviousness has been set forth.

In view of the above, no prima facie case of obviousness has been set forth for either of the independent claims under appeal. It is therefore requested that the final rejections of claims 1-4 be withdrawn.

Moreover, to establish a prima facie case of obviousness requires, among other things, that motivation in the prior art be identified that would cause one of ordinary skill in the art to make the proposed combination of references. This motivation must be found in the prior art, and it must be a motivation to make the proposed combination of all the cited references.

For example, where a rejection is based upon a combination of three references, as in the case of the rejections of claims 1, 2 and 4, motivation identified that would lead one of ordinary skill in the art to combine *all three*. It is not enough to provide motivation to combine the first two, and then say that in view of that combination, it would have been obvious to make the additional modification of the combination of the first two references.

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In the Final Office Action, *no* motivation was provided that would have led one to combine all three references. In the "Response to Arguments," at item 7 of the Final Office Action, the Examiner stated that "in this case, the motivation for combining the references is found in the knowledge generally available to one of ordinary skill in the art."

However, while this statement may relieve the Examiner from having to identify exactly *where* the alleged motivation-inducing teachings of the prior art come from, it does not relieve the Examiner of the burden of identifying *what the motivation-inducing teachings are.* Instead of identifying such teachings, in the subsequent text of item 7 of the Office Action, the Examiner simply lists the various elements that have been pieced together in the rejection to allegedly meet the claims, and connects them together with the connecting phrase "it would have been obvious." This is not remotely sufficient to meet the requirement for a prima facie case of obviousness.

In the Continuation Sheet of the Advisory Action mailed October 12, 2005, the Examiner responded to the above arguments by saying that the Examiner did provide "'what the teachings are' by listing the relevant teaching elements from each cited reference." In fact, what was listed in the portion of the Final Office in question were simply those elements of each cited reference that the Examiner believes are read on by the claim features.

In addition to failing to identify any teaching, either in the prior art or in the generally available knowledge, that would have *motivated* the three-way rejection, the only attempt that may be seen to explain *why* one would be motivated to make the combination is insufficient. Specifically, at page 4 of the Final Office Action, the Examiner stated that it would have been obvious to combine the references "in order to track working condition of a specific vehicle and to monitor the amount emission to facilitate limiting pollution to the environment."

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However, this is not a motivation at all, since it is simply a summary of certain advantages of the Applicant's invention. As in the non-final Office Action mailed February 23, 2005, the Examiner is, in effect, saying it would have been obvious to combine the references because such a combination would add up to the elements of the claim in question. Such reasoning amounts to an improper hindsight reconstruction of the claims.

It is entirely improper to use advantages engendered by the features of the Applicant's invention as motivation to have combined disparate elements from a number of references. If the advantages of the Applicant's invention tend to make it more obvious, by allegedly providing motivation to combine elements found in the prior art, then the most advantageous inventions would be the least likely to obtain a patent. This is obviously not what the law intends.
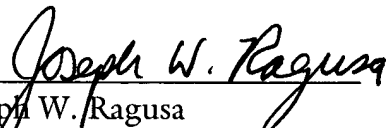
For at least the reasons set forth above, the Examiner has failed to establish a prima facie case of obviousness based on the combination used to reject claims 1, 2 and 4.

The rejection of claim 3 is even more deficient than that of claims 1, 2 and 4 since the Examiner has completely failed to provide motivation for a combination of *four* references. Moreover, the Examiner improperly took the combination of the first three references as a given in explaining the further modification based on Satoshi. This is improper since motivation must be shown to combine *all four references.* For at least this additional reason, no prima facie case has been made in connection to claim 3.

For at least the foregoing reasons, all of the independent claims are believed to be clearly patentable over the cited references and reversal of the rejections is respectfully requested.

Dated: December 22, 2005   Respectfully submitted,

By _Joseph W. Ragusa_

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APPENDIX A

Claims Involved in the Appeal of Application Serial No. 10/698,394

1.   (Previously Presented) An Eco-Driving diagnostic system comprising:

a vehicle;

a center;

a user terminal;

a network; and

a radio communication network; wherein:

the vehicle includes a vehicle sensor, an in-vehicle device, a radio communication terminal, wherein:

the in-vehicle device acquires information about at least the number of engine revolutions, fuel consumption, vehicle speeds, vehicle positional information and time information from the vehicle sensor, and temporarily processes the acquired data for subsequent use; and

the radio communication terminal transmits the information to the center via the radio communication network, and receives information from the center;

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the center includes a communication control device, a management server, a database, a mail server, and a Web server, wherein:

the communication control device in the center transmits and receives the information to and from the radio communication terminal in the vehicle;

the management server:

manages the information transmitted from the vehicle;

calculates, on the basis of the managed information, at least fuel consumption and environmental-load emissions with respect to each of events which may occur and corresponding to a total of events over a total driving time of the vehicle;

stores in the database the calculated information with user information;

retrieves the information stored in the database;

processes the retrieved information into contents for diagnosis and advices by combining and comparing the information;

provides the contents from the mail server to the user terminal via the network; and

provides the contents from the Web server to the user terminal via the network; and

the user terminal:

is a mobile terminal or a personal computer;·

sets up at least personal information, timing of providing the contents, and detail of the contents;

displays the contents; and

informs with sound.

2. (Original) An Eco-Driving diagnostic system as claimed in claim 1, wherein the radio communication terminal includes a displaying section to display information from the center.

3. (Previously Presented) An Eco-Driving diagnostic method comprising the steps of:

turning on a power source of an in-vehicle device when an engine of a vehicle is started up;

acquiring from a vehicle sensor, by the in-vehicle device, information necessary to comprehend driving statuses including at least engine revolutions, fuel consumption, vehicle speeds, vehicle positional information, and time information from the start of the engine;

temporarily processing, by the in-vehicle device, the acquired information so as to identify at least fuel consumption with respect to each of events which may occur and environmental-load emissions due to the fuel consumption;

transmitting the processed information from a radio communication terminal in the vehicle to a communication control device in a center via a radio communication network;

calculating, by a management server, the information received at the center to obtain at least fuel consumption and environmental-load emissions due to the fuel consumption with respect to each event or for a total driving time;

storing in a database the calculated information being associated with respective users and vehicles;

processing, by the management server, the information stored in the database into contents including at least results obtained by comparing the fuel consumption and environmental-load emissions due to the fuel consumption with respect to each event and for a total driving time with those of the other vehicles, and breakdowns of the environmental-load emissions with respect to each event;

finding out at least an event causing increases of fuel consumption and environmental-load emissions on the basis of the breakdowns:

creating contents including results of diagnosis and advices to urge a user to drive in such a way as to reduce the fuel consumption and the environmental-load emissions;

transmitting the created contents from a mail server in the center to a user terminal at its e-mail address; and

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providing the created contents to the user terminal via a Web server through a network; wherein:

the in-vehicle device is connected to the vehicle sensor via a wire line and short-range wireless communication system, respectively.

4.   (Previously Presented) A business system utilizing an Eco-Driving diagnostic system as claimed in claim 1, wherein:

the user terminal is a terminal of a company which is required to reduce fuel consumption of the vehicle;

the vehicle is a vehicle of the company; and

the center:

is a center of a traffic ESCO;

manages information about a fuel cost reduced by receiving services from the Eco-Driving diagnostic system at the vehicle;

informs the user terminal of the reduced fuel cost; and

receives a part of the reduced cost as a reward.

5. (Withdrawn-**Not Involved in Appeal**) A business system utilizing an Eco-Driving diagnostic system as claimed in claim 1, wherein:

the user terminal is a terminal of a company which is required to reduce environmental-load emissions from the vehicle;

the vehicle is a vehicle of the company; and

the center:

is a center of a traffic ESCO;

manages information environmental-load emissions reduced by receiving services from the Eco-Driving diagnostic system at the vehicle;

informs the user terminal of the emission reductions; and

receives a part of excess emissions as a reward when the emission reductions are below an assigned amount.

6. (Withdrawn-**Not Involved in Appeal**) A business system utilizing an Eco-Driving diagnostic system as claimed in claim 1, wherein:

the user terminal is a terminal of a company which is required to reduce environmental-load emissions from the vehicle;

the vehicle a vehicle of the company; and

the center:

is a center of an independent organization for accrediting environmental-load emissions dealt in emissions trading;

manages information about environmental-load emissions reduced by receiving services from the Eco-Driving diagnostic system at the vehicle;

accredits environmental-load emissions dealt in the emissions trading on the basis of the managed information;

informs the user terminal of the environmental-load emissions; and

receives a commission in reward for the accreditation.

7. (Withdrawn-**Not Involved in Appeal**) A business system utilizing an Eco-Driving diagnostic system as claimed in claim 1, wherein:

the user terminal is a terminal of an Eco-Driving route information service receiver which requires Eco-Driving route information;

the vehicle is an Eco-Driving diagnosed vehicle;

the center:

is a center of a company of an Eco-Driving route information service provider;

manages original information about environmental-load emissions and fuel consumption to create an Eco-Driving route, the information being acquired by receiving services from the Eco-Driving diagnostic system at the vehicle;

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comprehends a gap in fuel consumption and environmental-load emissions between different driving routes on the basis of the original information and the information acquired from the vehicle sensor of a plurality of the vehicles;

determines a driving route with less fuel consumption and less environmental-load emissions;

informs the user terminal of the determined information; and

receives a value for the services; and

the Eco-Driving diagnosed vehicle receives a value for providing the original information from the center.

8. (Withdrawn-**Not Involved in Appeal**) A business system utilizing an Eco-Driving diagnostic system as claimed in claim 1, wherein:

the user terminal is a terminal of a toll charging service provider for charging a toll on a tollway according to environmental-load emissions;

the vehicle is an Eco-Driving diagnosed vehicle; and

the center:

is a center of the toll charging service provider;

manages information about environmental-load emissions on the tollway, the information being acquired by receiving services from the Eco-Driving diagnostic system at the vehicle;

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informs the user terminal of the environmental-load emissions;

takes off a toll when the environmental-load emissions is below a stipulated value; and

charging a penalty toll when the environmental-load emissions exceed the stipulated value.

9. (Withdrawn-**Not Involved in Appeal**) A business system utilizing an Eco-Driving diagnostic system as claimed in claim 6, wherein:

the vehicle is a vehicle of a user of the Eco-Driving diagnostic services; and

another company purchase emission reductions of environmental loads from the user.

10. (Withdrawn-**Not Involved in Appeal**) A business system utilizing an Eco-Driving diagnostic system as claimed in claim 7, wherein the center transmits the determined driving route to the radio communication terminal in the vehicle.

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APPENDIX B – EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

APPENDIX C - RELATED PROCEEDINGS

No related proceedings are referenced in II. above, or copies of decisions in related proceedings are not provided, hence no Appendix is included.

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